

REMARKS

In the above-identified Office Action the Examiner has rejected claims 1-2, 9 and 11-13 and unpatentable over the Japanese reference in view of Rankin. The Examiner has concluded that it would have been obvious to clean a drain pipe as disclosed by the Japanese reference since the Japanese reference discloses all limitations expect that the specific injection hole in the nozzle is always in opposition to the inner peripheral surface of the pipe. The Examiner has taken the teaching of Rankin that the position of the nozzle injection hole would insure that the nozzle would not be centrally located within the pipe and that the nozzle is pressed against the interior wall of the pipe. Then the Examiner concludes that one of ordinary skill would manipulate the angles of the injection hole since Rankin has disclosed that the injection holes can be from 30 degrees to near 90 degrees. One hole has a different angle and the other injection hole has a different angle.

However, Examiner is not pointing to any teaching or suggestion in the art which would have a specific injection hole, here the largest injection hole, always facing and pressed against the inner peripheral surface of the pipe. One could not obtain such a suggestion from Rankin because Rankin rotates his nozzle so that the nozzle presents two jets off center with neither in opposition to the interior surface of the pipe; Rankin does not constantly push a specific injection hole of the plurality of injection holes against an inner peripheral surface of the pipe. Further Rankin does not teach the second plurality of injection holes to be all on the side of the pipes opposite the first injection hole, to maintain the first injection hole in position. Thus Rankin teaches away from always presenting a specific injection hole against the interior wall of the pipe. As a result Rankin may not be combined with the Japanese reference in any manner which would suggest the structure now claimed. Thus there is no suggestion in the art to maintain the nozzle at one attitude so that the largest injection hole faces and presses against the inner

peripheral surface of the pipe as claimed.

Claims 3 to 4 have been rejected as unpatentable over the Japanese reference with Rankin and Folts. The Examiner has stated that it would have been obvious to manipulate the angles of the injection holes for efficient removal of the material from inside of the drain pipe and to increase the spiral movement. However Rankin's nozzle rotates with the hose; there is no means allowing rotation of the nozzle so that one jet can always face the interior surface. Without the counterbalance of a second plurality of injection holes on the opposite side of the pipe, Rankin does not have a force that will put one jet always against the pipe wall.

Further, Folts does not teach a method of washing drain pipe by feeding the high pressure hose into the drain pipe and making the nozzle turn into a spiral movement while maintaining only one injection hole facing and pressed against the inner peripheral surface of the pipe. Folts teaches the cleaning and or deburring of a work material by placing a nozzle for directing a high velocity, high pressure jet onto a work material wherein the high velocity creating restriction is spaced from the discharge slots (col 2, lines 15 to 20). As a result Folts teaches against the placing of a specific injection hole so that it is always facing and pressed against the inner peripheral surface of the pipe. For this reason alone Folts may not be combined with Rankin and the Japanese reference in any rejection of the claimed subject matter. Therefore, neither Rankin or Folts provide structure that would allow one to reach applicant's structure as claimed.

Claims 5-8 and 10 have been rejected as unpatentable over their Japanese reference in view of Rankin, Folts and Iida et al. the addition of Iida to the references of Rankin and Folts et

al. as well as the Japanese reference does not supply the deficiencies noted above. Accordingly, Applicant believes that Claims 5-8 and 10 are also patentable over such art.

The Examiner has stated in his response to Applicant's arguments that the Japanese reference discloses that the hole 9a of nozzle 8, because it is larger than the other holes, produces thrust to the nozzle so that the hole 9a is adjacent to the inner peripheral surface of the pipe. Applicant notes that the Japanese reference does not suggest such a scenario. The holes 9b and 9d are perpendicular to that of 9a. Accordingly, there is no downward thrust from these injection holes. Applicant's corresponding holes are, as claimed, inside of the drain pipe, on the side opposite the first injection hole, not 90 degrees offset. Accordingly, (adopting the Japanese reference numbers) being on the opposite side and in combination with the fourth injection hole, 9(b)(c) and (d) provide a force opposite to and overpowering that of the hole 9a which therefore pushes hole 9a against the inner surface. The Examiner has also remarked on the "a thin length-like (12) nozzle guide member". Applicant does not understand how the Examiner is using the nozzle guide number 12, but notes that nozzle 8 does rotate by the injection opening force as quoted by the Examiner, and thus the hole 9a of the Japanese reference cannot be facing and pressed against the inner peripheral surface of the pipe in all situations as recited in Applicant's claim. Accordingly, Applicant wishes to emphasize that the Japanese reference does not teach and in fact teaches away from, having an injection hole which is larger than the other injection holes, which larger injection hole is always facing and pressed against the inner peripheral surface of the pipe. None of the prior art references teaches a structure that will maintain the constant attitude of a specific jet or injection hole against the inner peripheral surface of the pipe.

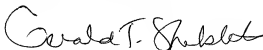
With the above amendments and remarks, this application is considered ready for

Atty. Docket No. 91752

allowance and applicant earnestly solicits an early notice of same. Should the Examiner be of the opinion that a telephone conference would expedite prosecution of the subject application, she is respectfully requested to call the undersigned at the below listed number.

Respectfully submitted,

WELSH & KATZ, LTD.

A handwritten signature in black ink, appearing to read "Gerald T. Shekleton". The signature is fluid and cursive, with the first name "Gerald" being the most prominent part.

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